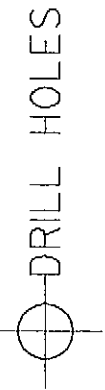
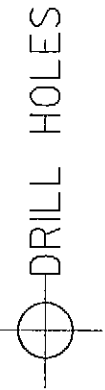
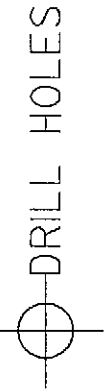


BORDER REV: DATE: March 27, 2007



BY: \$USER\$

## PROJECT DESCRIPTION

### GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATIONS & SIGNS, COUNTDOWN PEDESTRIAN SIGNALS (CPS) AND NON-INVASIVE MICROLOOP PROBE SETS AT THE INTERSECTION OF MD 450 (ANNAPOLIS ROAD) AND MD 193 (GLENN DALE BOULEVARD/ENTERPRISE ROAD) IN PRINCE GEORGE'S COUNTY. MD 450 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

### INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA EIGHT-PHASE, FULLY-TRAFFIC-ACTIVATED MODE. MD 193 AND MD 450 EXCLUSIVE LEFT TURNS SHALL REMAIN. A NEW PEDESTRIAN PHASE WILL RUN CONCURRENTLY WITH PHASE 2.

### CONTROLLER REQUIREMENTS

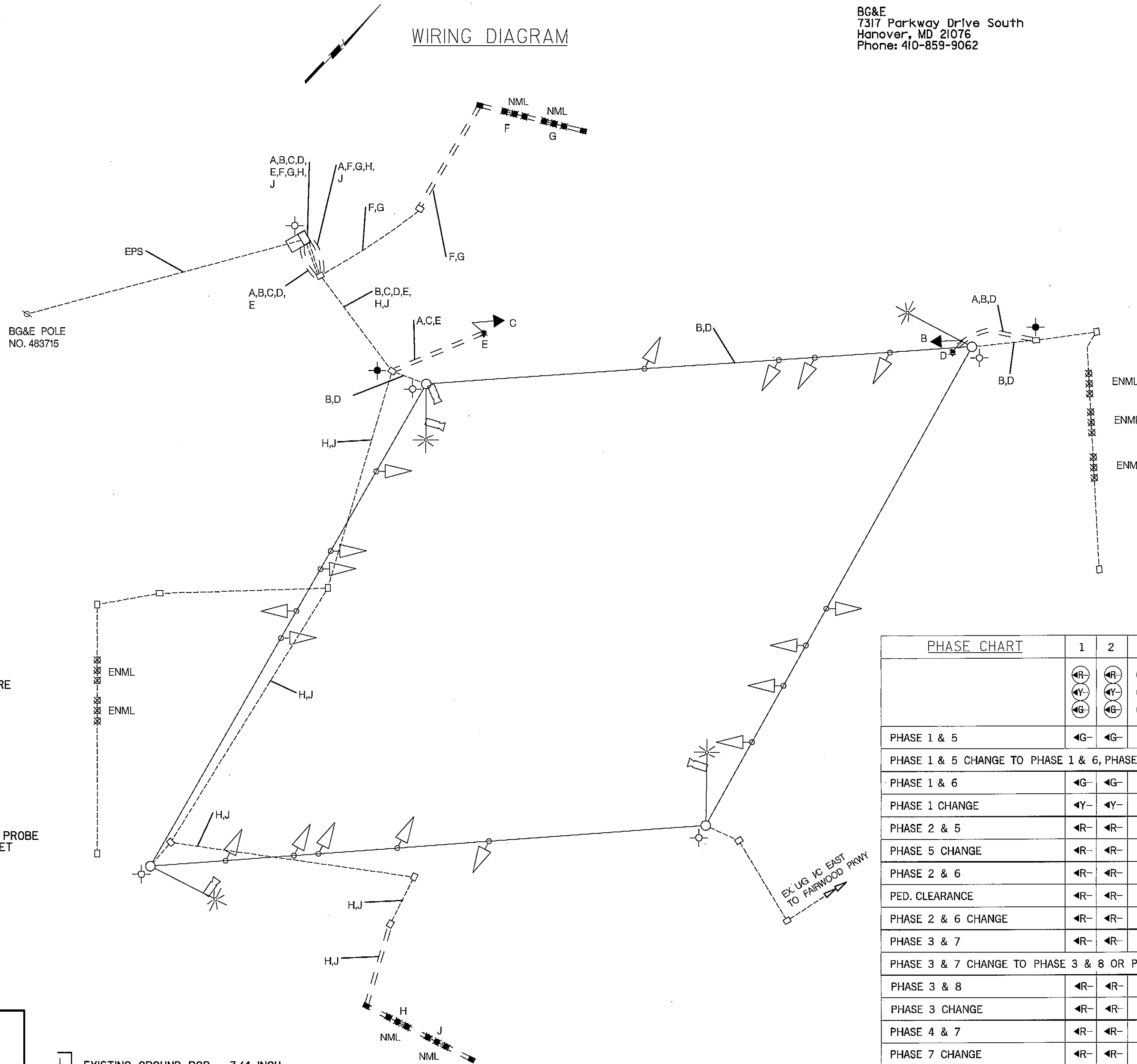
THE EXISTING BASE MOUNTED CABINET, CONTROLLER AND ASSOCIATED HARNESSES SHALL REMAIN. THE SHA SIGNAL SHOP WILL INSTALL ONE (1) 2 WIRE CENTRAL CONTROL UNIT WITHIN THE CABINET.

### APS WILL FUNCTION AS FOLLOWS:

TO CROSS GLENN DALE BOULEVARD:

- WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS GLENN DALE AT ANNAPOLIS, WAIT".
- WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

## WIRING DIAGRAM



- A NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- B ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
- C ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
- F NON-INVASIVE MICROLOOP PROBE LEAD IN CABLE- 1000 FEET
- G H J

EPS-EXISTING POWER SERVICE

ENML-EXISTING NON-INVASIVE MICROLOOP PROBE SET

NML- NON-INVASIVE MICROLOOP PROBE SET

**STV**  
STV Incorporated  
7125 Ambassador Road, Suite 200  
Baltimore, MD 21244  
www.stvinc.com

EXISTING GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH

PROPOSED GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Ms. Felecia Murphy  
Assistant District Engineer - Traffic  
Phone: 301-513-7404

Mr. Victor Grafton  
District Utility Engineer  
Phone: 301-513-7350

Mr. Vernon Stinnett  
Assistant District Engineer - Maintenance  
Phone: 301-513-7304

OFFICE OF TRAFFIC AND SAFETY:

Mr. Richard L. Daff Sr.  
Chief, Traffic Operations Division  
Phone: 410-787-7630

Mr. Robert Snyder  
Assistant Division Chief, Traffic Operations  
410-787-7630

Mr. Edward Rodenhizer  
Chief Signal Operations  
Phone: 410-787-7650

Mr. Eugene Bailey  
Chief Sign Operations  
410-787-7670

The Power Company is:

BC&E  
7317 Parkway Drive South  
Hanover, MD 21076  
Phone: 410-859-9062

## EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO	QUANTITY	DESCRIPTION
973023	19 SF	SHEET ALUMINUM SIGNS
		2 EA - R10-3(I) (9 IN. X 15 IN.) "PUSH BUTTON TO CROSS GLENN DALE ROAD"
		2 EA - W11-2 (30 IN. X 30 IN.)
		1 EA - W16-7pL (24 IN. X 12 IN.)
		1 EA - W16-7pR (24 IN. X 12 IN.)

## EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
203030	2 CY	TEST PIT EXCAVATION
585621	400 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
585625	110 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
800000	2 EA	16 IN. LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION
800000	2 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
800000	1 EA	2 WIRE CENTRAL CONTROL UNIT
801004	1 CY	CONCRETE FOR SIGNAL FOUNDATION
801106	40 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
802501	90 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	190 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805125	90 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805135	525 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
810605	4 EA	NONINVASIVE DETECTOR, 1000 FOOT LEAD IN CABLE
811001	4 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	17 SF	INSTALL GROUND MOUNTED SIGN
813015	2 SF	INSTALL OVERHEAD SIGN
818004	2 EA	10 FOOT BREAKAWAY PEDESTAL POLE
837001	2 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
861105	420 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	450 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

## EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO QUANTITY DESCRIPTION

NONE - ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR

## PHASE CHART

PHASE CHART	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PHASE 1 & 5	←R→	←R→	R	R	←R→	←R→	←R→	R	R	←R→	←R→	R	R	←R→	←R→	R	R	R	DW	DW
PHASE 1 & 5 CHANGE TO PHASE 1 & 6, PHASE 2 & 5 OR PHASE 2 & 6	←G→	←G→	G	G	←G→	←G→	←G→	G	G	←G→	←G→	G	G	←G→	←G→	G	G	G	DW	DW
PHASE 1 & 6	←G→	←G→	G	G	←R→	←R→	←R→	R	R	←R→	←R→	R	R	←R→	←R→	R	R	R	DW	DW
PHASE 1 CHANGE	←Y→	←Y→	G	G	←R→	←R→	←R→	R	R	←R→	←R→	R	R	←R→	←R→	R	R	R	DW	DW
PHASE 2 & 5	←R→	←R→	R	R	←G→	←G→	←G→	G	G	←R→	←R→	R	R	←R→	←R→	R	R	R	WK	WK
PHASE 5 CHANGE	←R→	←R→	R	R	←Y→	←Y→	←Y→	G	G	←R→	←R→	R	R	←R→	←R→	R	R	R	WK	WK
PHASE 2 & 6	←R→	←R→	G	G	←R→	←R→	←R→	G	G	←R→	←R→	R	R	←R→	←R→	R	R	R	WK	WK
PED. CLEARANCE	←R→	←R→	G	G	←R→	←R→	←R→	G	G	←R→	←R→	R	R	←R→	←R→	R	R	R	FL/DW	FL/DW
PHASE 2 & 6 CHANGE	←R→	←R→	Y	Y	←R→	←R→	←R→	Y	Y	←R→	←R→	R	R	←R→	←R→	R	R	R	DW	DW
PHASE 3 & 7	←R→	←R→	R	R	←R→	←R→	←R→	R	R	←G→	←G→	R	R	←G→	←G→	R	R	R	DW	DW
PHASE 3 & 7 CHANGE TO PHASE 3 & 8 OR PHASE 4 & 7	←R→	←R→	R	R	←R→	←R→	←R→	R	R	←G→	←G→	G	G	←R→	←R→	R	R	R	DW	DW
PHASE 3 & 8	←R→	←R→	R	R	←R→	←R→	←R→	R	R	←G→	←G→	G	G	←R→	←R→	R	R	R	DW	DW
PHASE 3 CHANGE	←R→	←R→	R	R	←R→	←R→	←R→	R	R	←Y→	←Y→	G	G	←R→	←R→	R	R	R	DW	DW
PHASE 4 & 7	←R→	←R→	R	R	←R→	←R→	←R→	R	R	←R→	←R→	R	R	←G→	←G→	G	G	R	DW	DW
PHASE 7 CHANGE	←R→	←R→	R	R	←R→	←R→	←R→	R	R	←R→	←R→	R	R	←Y→	←Y→	Y	Y	G	DW	DW
PHASE 4 AND 8	←R→	←R→	R	R	←R→	←R→	←R→	R	R	←R→	←R→	G	G	←R→	←R→	G	G	G	DW	DW
PHASE 4 AND 8 CHANGE	←R→	←R→	R	R	←R→	←R→	←R→	R	R	←R→	←R→	Y	Y	←R→	←R→	Y	Y	DW	DW	DW
FLASHING OPERATION	FL/RA	FL/RA	FL/Y	FL/Y	FL/RA	FL/RA	FL/RA	FL/Y	FL/Y	FL/RA	FL/RA	FL/R	FL/R	FL/RA	FL/RA	FL/RA	FL/R	FL/R	DARK	DARK

PLOTTED: \$DATETIMES  
FILE: \$FILES



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 450 (ANNAPOLIS RD)  
AT MD 193 (GLENN DALE BLVD/ENTERPRISE RD)  
GLENN DALE, MARYLAND

## GENERAL INFORMATION

SCALE 1" = 20' ADVERTISED DATE 01/2012 CONTRACT NO. PG8935177

DESIGNED BY KXT COUNTY PRINCE GEORGE'S  
DRAWN BY KXT LOGMILE 16045008.79  
CHECKED BY MTS TMS NO. L101  
F.A.P. NO. TOD NO.

TS NO. 1821E-GI DRAWING SG-06 OF 06 SHEET NO. 06 OF 06